REMARKS

Claims 1 - 20 are pending. No new matter has been introduced. Prior to examination of the above-identified application, please consider these preliminary remarks.

Applicants have enclosed herewith a PTO-Form 1449 identifying references potentially relevant to this invention. The references identified on the PTO-Form 1449 include references cited by Examiners in Office Actions for the parent application, as well as in Office Actions for related foreign patent applications.

The present application is a Rule 53(b) continuation of U.S. patent application serial No. 10/053,685 ("the '685 application"), filed January 24, 2002. In the '685 application, applicants filed a Rule 116 amendment canceling claims 1, 3 - 5, 13, 15 - 16, 19, 23, 26, and 28 - 29. In the instant patent application, applicants are presenting claims directed to the subject matter described in cancelled claims 1, 3 - 5, 13, 15 - 16, 19, 23, 26, and 28 - 29 of the parent '685 application.

In the parent '685 application, the Examiner rejected claims corresponding to the instant application's claims 1, 11, and 16 based on U.S. published patent application No. 2001/0045815 to Muratov et al. (the Muratov reference). The Examiner rejected claims corresponding to the instant application's claim 6 based on U.S. Patent No. 6,009,000 to Siri (the Siri reference) in view of the Muratov reference. These rejections are respectfully traversed in so far as applicable to the present claims.

Independent claim 1, as amended,

> A power supply system, comprising:
>
> a controller configured to cause a regulator to produce a principle

supply voltage and a secondary supply voltage, said regulator for coupling to a power source and to a microelectronics device to supply said principal supply voltage and said secondary supply voltage to said microelectronics device,

wherein said controller is further configured to **maintain said principal supply voltage within a tolerance level bounded at a principal supply upper limit by a first reliability voltage value** and bounded at a principal supply lower limit by a second reliability voltage value, **to maintain said secondary supply voltage within a second tolerance level bounded at a secondary supply upper limit by the first reliability voltage value** and bounded at a secondary supply lower limit by a third reliability voltage value and said first reliability voltage value, said first reliability voltage is determined by multiplying one plus a tolerance level by a first input voltage required value, and the second tolerance level for the secondary supply voltage **has a large first percentage of tolerance for the secondary supply upper limit and a smaller unique second percentage of tolerance for the secondary supply lower limit**.

Applicants respectfully submit that the Muratov reference does not disclose, teach, or suggest the power supply system of claim 1. The Examiner, in rejecting claim 1 in the '685 application's September 24, 2003 Office Action, identified that the Muratov reference discloses that the "controller is further to maintain the principle supply voltage within a tolerance window (within 2.5% tolerance) and maintain the secondary supply

voltage in the second tolerance level (2.5% tolerance)." *(September 24, 2003 Office Action, page 2).* Independent claim 1, however, requires that the principal supply voltage is to be maintained within a first tolerance level bounded at a primary supply upper limit of the **first reliability voltage value** and the secondary supply voltage is to be maintained within a second tolerance level bounded at a secondary supply upper limit by the **first reliability voltage value.** In other words, both the principal supply voltage and the secondary supply voltage are maintained within tolerance levels bounded at an upper limit by the **first reliability voltage value, i.e. the same voltage value**.

The Muratov reference does not disclose that the principal supply voltage and the secondary supply voltage are maintained within tolerance levels bounded at an upper limit by the same first reliability voltage value. Specifically, Tables 2 - 7 all show that the primary voltage value, labeled performance mode, is maintained with a first tolerance level value bounded at an upper limit by 1.64 volts, i.e., the first reliability voltage value. The secondary voltage value, labeled battery mode, is maintained within a second tolerance level bounded by at an upper limit by 1.384 or 1.39 volts. 1.384 / 1.39 is not the first reliability voltage value of 1.64 volts. The Examiner even utilizes this example in discussing claim 26 when he states the upper limit of the first voltage regulation range is 1.64 and the upper limit for the second voltage value is 1.384. *(September 24 Office Action, pages 4 and 7).* Therefore, the Muratov reference <u>does not</u> disclose the principal supply voltage is to be maintained within a first tolerance level bounded at a primary supply upper limit by the **first reliability voltage value** and the secondary supply voltage is to be maintained within a second tolerance level bounded

at a secondary supply upper limit by the **first reliability voltage value.** Accordingly, applicants respectfully submit that claim 1 distinguishes over the Muratov reference.

Independent claims 11 and 16 recite similar limitations to claim 1. Accordingly, applicants respectfully submit that claims 11 and 16 distinguish over the Muratov reference for similar reasons as discussed above in regard to the independent claim 1.

Claims 2 - 5, 12 - 15, and 17 - 20 depend, directly or indirectly from independent claims 1, 11, and 16. Accordingly, applicants respectfully submit that claims 2 - 5, 12 - 15, and 17 - 20 distinguish over the Muratov reference for the same reasons as discussed above in regard to independent claims 1, 11, and 16.

Independent claim 1 further distinguishes over the Muratov reference. The Muratov reference does not disclose, teach, or suggest, a power supply system wherein the second tolerance level for the secondary supply voltage **has a large first percentage of tolerance for the secondary supply upper limit and a significantly smaller second percentage of tolerance for the secondary supply lower limit.**

Instead, the Muratov reference discloses that the first percentage of tolerance for the secondary supply upper limit and the second percentage of tolerance for the secondary supply lower limit are exactly the same. For example, in tables 2 and 3, the first percentage tolerance and the second percentage tolerance are 2.5%. This is not the same as having a **large first percentage of tolerance for the secondary supply upper limit and the significantly smaller second percentage of tolerance for the secondary supply lower limit** because the Muratov references percentage tolerance are the same. Accordingly, applicants respectfully submit that independent claim 1 further distinguishes over the Muratov reference.

In the September 24, 2003 Office Action for the parent '685 application, the Examiner cited a combination of the Muratov reference and the Siri reference as disclosing the subject matter of the current application's claim 6. The Siri and Muratov references do not disclose, teach, or suggest the regulator of claim 6. Claim 6 recites:

> A regulator, comprising:
>
> a plurality of regulator circuits for coupling to a microelectronics device to provide a plurality of regulated input voltages to said microelectronics device, **the plurality of regulated input voltages being maintained within an input voltage range bounded at an upper limit by a first reliability voltage value**, the first reliability voltage value determined by multiplying a first one of the plurality of regulated input voltages by the sum of one and a tolerance level, wherein each regulator circuit provides a particular one of said plurality of regulated input voltages to said microelectronics device,
>
> wherein each said regulator circuit further includes:
>
> a controller including a comparator and a threshold detector, an input of said comparator being coupled to the output of said threshold detector,
>
> a switch coupled to said controller and operating in response to a signal provided by said controller, said switch connected to an inductor, a diode, and an output capacitor arranged in a network that produces a load current in response to an input source voltage received via said switch, and

a current sense feedback network connected to said network output and having a gain factor, said feedback network coupled to said threshold detector to cause said threshold detector to produce an output signal as a product of said gain factor,

the controller being configured to produce one of said plurality of regulated input voltages by varying the duty cycle of said switch in accordance with a voltage current loadline, and

to maintain said one of said plurality of regulated input voltages within an input voltage range bounded at a lower limit, and

the lower limit for said one of said plurality of regulated input voltages being computed by said controller in order to maintain said one of said plurality of regulated input voltages in accordance with said voltage-current loadline of said one of said plurality of regulated input voltages for different values of said load current.

In the September 24, 2003 Office Action, the Examiner utilizes the Siri reference to show a regulator comprised of a plurality of regulator circuits, each regulator circuit for coupling to a load, wherein each regulator provides a particular one of the regulated input voltages. The Examiner also utilizes the Siri reference to show that the regulator further includes a controller including a comparator and a threshold detector, an input of the comparator connected to an output of the threshold detector, a switch coupled to the controller and operating in response to the a signal provided to the controller, the switch being coupled to an inductor, a diode, a capacitor arranged in a network that produces a load current in response to the input voltage received via the switch. The

Examiner also identifies that the Siri reference discloses maintaining the one of the input voltages within a level tolerance (within 1%). *(Office Action, page 5)*.

Assuming, *arguendo*, that the Siri reference discloses all the Examiner states that it does, the Siri reference does not show a regulator including a plurality of regulator circuits for coupling to a microelectronics device to provide a plurality of regulated input voltages to said microelectronics device, **the plurality of regulated input voltages being maintained within an input voltage range bounded at an upper limit by a first reliability voltage value.** The Siri reference is not directed to supplying a plurality of input voltages to a microelectronics device. In addition, assuming, *arguendo*, the Siri reference discloses supplying a plurality of input voltages to a microelectronics device, there is no disclosure in the Siri reference identifying that the **plurality of input voltages are all maintained within an input voltage range bounded at an upper limit by the first reliability voltage value**. Accordingly, applicants respectfully submit that independent claim 6 distinguishes over the Siri reference.

The Muratov reference does not make up for the deficiencies of the Siri reference. As discussed above with regard to independent claims 1, 11, and 16, the Muratov reference does not discloses that a plurality of input voltages are **maintained with an input voltage range bounded at an upper limit by a first reliability voltage value.** Accordingly, applicants respectfully submit that independent claim 6 distinguishes over the Muratov reference, alone or in combination, with the Siri refrence.

Claims 7 - 10 depend, directly or indirectly, from independent claim 6.

Accordingly, applicants submit that claims 7 - 10 distinguish over the Siri and Muratov references, alone or in combination, for the same reasons as discussed above in regard to independent claim 6.

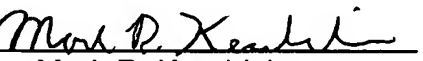
Applicants respectfully request an action on the merits.

If the Examiner has any questions regarding this application, the Examiner is requested to call either of the undersigned attorneys at the Los Angeles telephone number (213) 488-7100 to discuss the steps necessary for placing the application in condition for allowance should the Examiner believe that such a telephone conference would advance prosecution of the application.

Respectfully submitted,

PILLSBURY WINTHROP LLP

Date: February 26, 2004

By: 
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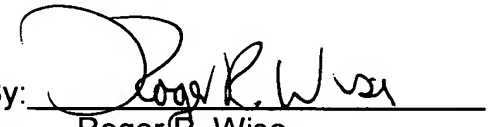
By: 
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